Atmos. Profile: Std. Press. Level (FIFE)

Summary:

The FIFE Standard Pressure Level Radiosonde Data Set provides a set of standard level profiles (i.e., 5 mb pressure intervals) from over 450 radiosonde balloon flights, which occurred every one to three hours (daylight hours) during the FIFE IFCs. This derived profile data were computed to 5 mb pressure intervals through simple linear interpolation means. An assumption exists that a linear interpolation scheme may be used with sufficient accuracy to assign meteorological values at 5 mb pressure levels. Some errors are introduced using this method.

Several new variables were computed from the original FIFE Radiosonde Data and are included in this derived data set. U (east-west) and V (north-south) winds have been computed from wind speed and direction, and potential temperature has been computed from pressure and temperature. These new parameters are desirable for initial conditions in numerical models as well as forcing functions in models, or as verification and comparison of numerical model's results.

Table of Contents:

1. Data Set Overview:

Data Set Identification:

FIFE Atmos. Profile: Std. Press. Level (FIFE)
(FIFE Standard Pressure Level Radiosonde Data.)

Data Set Introduction:

The FIFE Standard Pressure Level Radiosonde Data Set contains the meteorological parameters that were derived from the raw radiosonde data provided to FIFE by Prof. W. Brutsaert. The following parameters are provided at 5 mb pressure levels: dry and wet bulb temperatures, atmospheric mixing ratios, potential temperatures, and the U (east-west) and V (north-south) components of the wind.

Objective/Purpose:

The purpose of this work was to estimate atmospheric meteorological parameters at 5 mb pressure levels from the raw radiosonde data provided to FIFE by Prof. W. Brutsaert (see the description in the FIFE Radiosonde Data document for more details).

Summary of Parameters:

Meteorological parameters included in this data set are: dry and wet bulb temperatures, atmospheric mixing ratios, potential temperatures, and the U (east-west) and V (north-south) components of the wind.

Discussion:

Many research endeavors require atmospheric profile data at standard pressure intervals, whereas the radiosonde data provided to FIFE by Prof. Brutsaert (FIFE Radiosonde Data) had short time intervals. This data set provides a set of standard level profiles (i.e., 5 mb pressure intervals) from over 450 radiosonde balloon flights, which occurred every one to three hours (daylight hours) during the FIFE IFCs. This derived profile data were computed to 5 mb pressure intervals through simple linear interpolation means.

In addition, several new variables have been computed from the original FIFE Radiosonde Data and are included in this derived data set. U (east-west) and V (north-south) winds have been computed from wind speed and direction and potential temperature has been computed from pressure and temperature. These new parameters are desired by numerical modelers who may use them as initial conditions and/or forcing functions for their models, or as verification and comparison of their model's results.

Related Data Sets:

- FIFE Radiosonde Data. This data set contains Dr. Brutsaert original radiosonde observations.
- FIFE Temperature and Humidity Profiles. This data set contains temperature and humidity profiles data derived from the original FIFE Radiosonde Data.

- FIFE Radiosonde Wind Profiles. This data set contains corrected wind velocities derived from FIFE Radiosonde Data.

FIS Data Base Table Name:

BRUT_SONDE_DRV.

2. Investigator(s):

Investigator(s) Name and Title:

Staff Science.

Title of Investigation:

Staff Science Data Reduction Program.

Contact Information:

Contact 1:
Dr. Robert J. Lutz
NASA/Goddard Space Flight Center
Tel.: (301) 286-1272
Email: lutz@pldsg3.gsfc.nasa.gov

Requested Form of Acknowledgment.

The FIFE Standard Pressure Level Radiosonde Data were calculated from the FIFE Radiosonde Data by Dr. Robert Lutz of the FIFE Information System Staff.

3. Theory of Measurements:

A description of the general theory of the data set is found in the FIFE Radiosonde Data document. Specifically within this derived data set, an assumption exists that a linear interpolation scheme may be used with sufficient accuracy to assign meteorological values at 5 mb pressure levels. Some errors will be introduced using this method (see the *Sources of Error Section*).

4. Equipment:

Sensor/Instrument Description:

See the FIFE Radiosonde Data document for a description of the radiosonde instrument used to collect the original data. No additional equipment was used in deriving the data set.

Collection Environment:

See the *Sensor/Instrument Description Section*.

Source/Platform:

See the *Sensor/Instrument Description Section*.

Source/Platform Mission Objectives:

See the *Sensor/Instrument Description Section*.

Key Variables:

See the *Sensor/Instrument Description Section*.

Principles of Operation:

See the *Sensor/Instrument Description Section*.

Sensor/Instrument Measurement Geometry:

See the *Sensor/Instrument Description Section*.

Manufacturer of Sensor/Instrument:

See the *Sensor/Instrument Description Section*.

Calibration:

See the FIFE Radiosonde Data document for a description of the calibration applied to the original data from which this data set was derived. No additional calibration checks were made in deriving the data set described here.

Specifications:

See the *Calibration Section*.

Tolerance:

See the *Calibration Section*.

Frequency of Calibration:

See the *Calibration Section*.

Other Calibration Information:

See the *Calibration Section*.

5. Data Acquisition Methods:

This is a derived product. The original data was obtained from the FIFE Radiosonde Data provided on FIFE CD-ROM Volume 1.

6. Observations:

None.

7. Data Description:

Spatial Characteristics:

The FIFE study area, with areal extent of 15 km by 15 km, is located south of the Tuttle Reservoir and Kansas River, and about 10 km from Manhattan, Kansas, USA. The northwest corner of the area has UTM coordinates of 4,334,000 Northing and 705,000 Easting in UTM Zone 14.

Spatial Coverage:

The derived atmospheric profile data was calculated from radiosonde data collected from balloon releases at the FIFE site listed below:

SITEGRID	STN_ID	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV
0928-RSB	102	4332188	710674	39 06 55	-96 33 48	342

The spatial coverage varies with each flight depending upon the horizontal distance traveled and the direction and rate of assent of the balloon. The distance and direction of the assent can be obtained from the FIFE Radiosonde Wind Profiles data set.

Spatial Coverage Map:

Not available.

Spatial Resolution:

These are point data provided at constant pressure intervals (5 mb). The vertical resolution, height above the ground in meters, will vary approximately logarithmically as the sonde rises.

Projection:

Not available.

Grid Description:

Not available.

Temporal Characteristics:

Temporal Coverage:

The data was collected during FIFE's five IFC's, covering the period from May 26, 1987 through August 12, 1989.

IFC#	Dates
IFC-1	05/26/87 - 06/06/87
IFC-2	06/25/87 - 07/11/87
IFC-3	08/06/87 - 08/21/87
IFC-4	10/05/87 - 10/16/87
IFC-5	07/24/89 - 08/12/89

Temporal Coverage Map:

Not available.

Temporal Resolution:

The soundings were made at 1 to 3 hour intervals, depending on weather conditions.

Derivations were made at constant pressure intervals, resulting in non-constant time intervals.

Data Characteristics:

The SQL definition for this table is found in the BRUT_DRV.TDF file located on FIFE CD-ROM Volume 1.

Parameter/Variable Name

Parameter/Variable Description **Range** **Units** **Source**

SITEGRID_ID
This is a FIS grid location code.
Site grid codes (SSEE-III) give

the east (EE) and south (SS) cell number in a 100 x 100 array of 200 m square cells. The last 3 characters (III) are an instrument identifier.			
STATION_ID The station ID designating the location of the observations.			
OBS_DATE The date of the observations, in the format (DD-MMM-YY).	min = 26-MAY-87, max = 12-AUG-89		CORNELL UNIVERSITY
OBS_TIME The time of day the observation was made.	min = 3, max = 235953	[GMT]	CORNELL UNIVERSITY
OBS_SECONDS The seconds portion of the OBS_TIME.	min = 0 max = 30	[GMT]	FIS
OBS_TIME_DECIMAL The time of day, expressed in hours and decimal hours. For example, 12:30 (12 hours and 30 minutes) corresponds to 12.50 in this column.	min = .00111, max = 23.99823	[GMT]	FIS
FLIGHT_NUM This is the flight number of the radiosonde balloon flight where the data was recorded.	min = 1, max = 450		FIS
ATMOSPHERIC_PRESS The atmospheric pressure at the observation height.	min = 440, max = 999	[millibars]	ANEROID SENSOR

HEIGHT_ABV_GRND_LVL The height above the ground level where the observation was made. CORNELL UNIVERSITY	min = 0, max = 8541, missing = -999	[meters]	
DRY_BULB_TEMP The temperature measured using a conventional thermometer. THERMISTOR	min = -21.61, max = 37.21	[degrees Celsius]	
WET_BULB_TEMP The temperature to which air may be cooled by evaporating water into it at a constant pressure until it is saturated. THERMISTOR	min = -15.38, max = 26.36, missing = -999	[degrees Celsius]	
MIX_RATIO The mixing ratio of water to air: grams of water per kilogram of dry air (mass of air minus mass of water).	min = -.51, max = 22.2, missing = -999	[grams] [kg ^-1 of air]	FIS
POTNTL_TEMP The potential temperature at the observation height; the temperature an air sample attains if reduced to 1000 millibars pressure without any external heat exchange.	min = 276.25, max = 330.85	[degrees Kelvin]	FIS
U_COMPNT_WIND_VELOC The U (westward) component of the wind velocity at the observation height. CORNELL UNIVERSITY	min = -36.12, max = 453.33, missing = -999	[meters] [sec^-1]	
V_COMPNT_WIND_VELOC The V (northward) component of the wind velocity at the observation height. CORNELL UNIVERSITY	min = -204.16, max = 637.06, missing = -999	[meters] [sec^-1]	
FIFE_DATA_CRTFCN_CODE * The FIFE Certification Code for the	min = pre,		FIS

data, in the following format: CPI (Certified by PI), CPI-??? (CPI - questionable data).	max = pre
LAST_REVISION_DATE the data, in the format (DD-MMM-YY).	max = 13-DEC-91

Footnote:

* Valid levels

The primary certification codes are:

EXM Example or Test data (not for release)

PRE Preliminary (unchecked, use at your own risk)

CPI Checked by Principal Investigator (reviewed for quality)

CGR Checked by a group and reconciled (data comparisons and cross checks)

The certification code modifiers are:

PRE-NFP Preliminary - Not for publication, at the request of investigator.

CPI-MRG PAMS data that is "merged" from two separate receiving stations to eliminate transmission errors.

CPI-??? Investigator thinks data item may be questionable.

Sample Data Record:

SITEGRID_ID	STATION_ID	OBS_DATE	OBS_TIME	OBS_SECONDS	FLIGHT_NUM

```
0928-RSB          102        28-MAY-87      1228           42            5
0928-RSB          102        28-MAY-87      1228           47            5
0928-RSB          102        28-MAY-87      1228           52            5
0928-RSB          102        28-MAY-87      1228           57            5
```

FILE_NAME	ATMOSPHERIC_PRESS	HEIGHT_ABV_GRND_LVL	DRY_BULB_TEMP
FL5.DAT	972.9	23	15.990
FL5.DAT	969.8	49	16.060
FL5.DAT	966.5	79	16.080
FL5.DAT	963.2	108	16.040

WET_BULB_TEMP	MIX_RATIO	POTNTL_TEMP	AZIM_ANG	ELEV_ANG	WIND_SPEED
14.870	10.510	291.4300	16.980	15.300	-999.0000
14.760	10.390	291.7600	12.770	20.060	13.1500
14.620	10.260	292.0600	11.170	23.530	13.1500
14.450	10.120	292.3100	11.000	25.330	9.4900

8. Data Organization:

Data Granularity:

This data set contains derived point data provided at 5 mb pressure intervals. The original data was collected during the five FIFE IFCs, covering the period from May 26, 1987 through August 12, 1989.

A general description of data granularity as it applies to the IMS appears in the EOSDIS Glossary.

Data Format:

The CD-ROM file format consists of numerical and character fields of varying length separated by commas. The character fields are enclosed with a single apostrophe. There are no spaces between the fields. Each file begins with five header records. Header records contain the following information: Record 1 Name of this file, its table name, number of records inthis file, path and name of the document that describes the data in this file, and name of principal investigator for these data.

Record 2 Path and filename of the previous data set, and path and filename of the next data set. (Path and filenames for files that contain another set of data taken at the same site on the same day.)

Record 3 Path and filename of the previous site, and path and filename of the next site. (Path and filenames for files of the same data set taken on the same day for the previous and next sites (sequentially numbered by SITEGRID_ID)).

Record 4 Path and filename of the previous date, and path and filename of the next date. (Path and filenames for files of the same data set taken at the same site for the previous and next date.)

Record 5 Column names for the data within the file, delimited by commas.

Record 6 Data records begin.

Each field represents one of the attributes listed in the chart in the *Data Characteristics Section* and described in detail in the TDF file. These fields are in the same order as in the chart.

9. Data Manipulations:

Formulae:

Derivation Techniques and Algorithms:

The following formulas were used to generate the derived values reported in this data set.

1. From wind speed and direction, the **U** (east-west) and **V** (north-south) components of the wind may be computed. To calculate **U** and **V** wind components from wind direction (**DIR**), and wind speed (**VS**).

   where:

   U = East-West component of the wind
   V = North-South component of the wind

   then:

   U = -VS sin(DIR)

   V = -VS cos(DIR)

2. The first time in this derived data set corresponds to launch time. This value was found from the mean of the first 5 values (in the original data set), with a height greater than 20 meters. This value will be different for each flight. All meteorological parameters for this launch time were also computed by averaging over those same five time values. A launch pressure was arrived at in this same method, resulting in a non-integer value.
3. Fixed pressure levels were calculated from launch pressure at standard 5 mb integer intervals; i.e., if the launch pressure is equal to 972.2 mb, the following pressure levels were calculated: 970, 965, 960, 955.....

   A linear interpolation method was used to weight values of variables at these 5 mb pressure intervals. Although pressure varies logarithmically with height in the atmosphere; over small intervals of pressure, linear methods may be applied.

   If **PR(k)** is the desired 5 mb pressure level (**k**) and **PR(k)** falls between **P(I)** and **P(I+1)**; then:

----- P(I+1)

PR(k) ----->

----- P(I)

where:

P(I+1) = First pressure in original data set greater than **PR(K)**
P(I) = First pressure in original data set less than **PR(K)**

Then, using:

WT = [P(I) - PR(k)] / [P(I) - P(I + 1)]

where:

WT = weighting factor,

S(k) = S(I) + WT * S(I + 1)

where:

S(k) = value of variable interpolated to the desired pressure level **P(k)**
S(I+1) = value of variable at pressure of **P(I+1)**
S(I) = value of variable at pressure of P(I)

4. Potential temperature (**THETA**) was calculated using the following formula:

   T = Temperature - dry bulb (degree C)

   P = Pressure (mb)

   THETA = (T + 273.15) * (1000 / P)0.2854**

5. To correct for erroneous wet bulb temperatures (i.e., when wet bulb freezes), wet bulb temperatures were removed when they are less than 0.5 degrees C and previous value was lower than present value.
6. To convert time (in hours and minutes) to decimal time (time expressed in decimal format), 1 minute = (1/60) hour e.g., 12 hours 30 minutes = 12.5).
7. Other notes - all missing values were coded as -999.0.

Data Processing Sequence:

Processing Steps:

1. Data extracted from the FIFE Radiosonde Data set.
2. Additional variables not contained in the FIFE Radiosonde Data set were calculated.
3. Launch time, pressure and launch meteorological variables computed.
4. All variables interpolated to standard 5 mb pressure levels.
5. All resulting variables inserted into FIFE Standard Pressure Level Radiosonde Data set.

Processing Changes:

None.

Calculations:

Special Corrections/Adjustments:

It was noted that on two flights (192 and 207), instruments continued to record and provide data after the radiosonde began to descend i.e., after the balloon had exploded in the upper atmosphere. This descending data was removed from the data set.

Calculated Variables:

- East-West and North-South components of the wind,
- Wind Speed,
- Fixed pressure levels, and
- Potential temperature.

Graphs and Plots:

None.

10. Errors:

Sources of Error:

As in any data set formed using a linear interpolation scheme, the original maximas and minimas tend to be slightly "smoothed" out.

Quality Assessment:

Data Validation by Source:

Dr. Robert Lutz checked this data, and assigned -999.0 to all missing values. No cross-checking with other data sets was done.

Confidence Level/Accuracy Judgment:

There are known errors (due to errors in the original data set) in this derived data set. Though the time intervals are short during these "erroneous" data collection periods, investigators should be aware of their existence (e.g., for averaging purposes).

1. Mixing ratio - negative mixing ratios (-0.0 to -0.6) are found on May 30, 1987 (2219 to 2222), Jun 4, 1987 (2142 to 2325), and Jun 25, 1987 (1901 to 1902).
2. U winds -

   Winds greater than 50 meters per second are found on July 2, 1987 (2023 to 2031), August 9, 1987 (1208 to 1211), August 20, 1987 (2213), and October 14, 1987 (1516).

3. V winds -

   Winds greater than 50 meters per second are found on June 2, 1987 (1637 to 1639), July 1, 1987 (2002), July 2, 1987 (2017 to 2031), July 10, 1987 (1838), July 11, 1987 (1426 to 1430, 2038, 2312), August 8, 1987 (1527 to 1529, 1715 to 1716, 1721 to 1723, 1727 to 1728, 1731, 1733 to 1734, 1843, 1845, 1853 to 1854, 2014 to 2015, 2018 to 2019, 2028 to 2030), August 13, 1987 (1559 to 1600, 2135), August 17, 1987 (1220), and October 13, 1987 (2109 to 2110).

   Winds less than -50 meters per second are found on August 9, 1987 (1208 to 1210) and October 12, 1987 (2059).

Measurement Error for Parameters:

Not estimated for this data set at this revision.

Additional Quality Assessments:

FIS did a general quality check on the data, checking minimas and maximas within the data fields.

Data Verification by Data Center:

The data verification performed by the ORNL DAAC deals with the quality of the data format, media, and readability. The ORNL DAAC does not make an assessment of the quality of the data itself except during the course of performing other QA procedures as described below.

The FIFE data were transferred to the ORNL DAAC via CD-ROM. These CD-ROMs are distributed by the ORNL DAAC unmodified as a set or in individual volumes, as requested. In addition, the DAAC has incorporated each of the 98 FIFE tabular datasets from the CD-ROMs into its online data holdings. Incorporation of these data involved the following steps:

- Copying the entire FIFE Volume 1, maintaining the directory structure on the CD-ROM;

- Using data files, documentation, and SQL code provided on the CD-ROM to create a database in Statistical Analysis System (SAS); and
- Creating transfer files to transfer the SAS metadata database to Sybase tables.

Each distinct type of data (i.e. "data set" on the CD-ROM), is accompanied by a documentation file (i.e., .doc file) and a data format/structure definition file (i.e., .tdf file). The data format files on the CD-ROM are Oracle SQL commands (e.g., "create table") that can be used to set up a relational database table structure. This file provides column/variable names, character/numeric type, length, and format, and labels/comments. These SQL commands were converted to SAS code and were used to create SAS data sets and subsequently to input data files directly from the CD-ROM into a SAS dataset. During this process, file names and directory paths were captured and metadata was extracted to the extent possible electronically. No files were found to be corrupted or unreadable during the conversion process.

Additional Quality Assurance procedures were performed as follows:

- Statistical operations were performed to calculate minimum and maximum values for all numeric fields and to create a listing of all values of the character fields. During this process, it was determined that various conventions were used to represent missing values. (Note: no modifications were made to any data by the DAAC). In most cases, missing value identification conventions were discussed in the accompanying .doc file. Based on a visual check of the minimum and maximum values, no glaring errors or holes were identified that might indicate errors introduced during CD-ROM mastering by the FIFE project or data ingest by the DAAC.
- Some minor inconsistencies and typographical errors were identified in some of the character fields and column labels, however, no modifications were made to the data by the DAAC.
- Some conversions of ASCII data were necessary to move the data from a DOS platform to a UNIX platform. Standard operating system conversion utilities were used (e.g., dos2unix).
- Much of the metadata required for archival is imbedded in the narrative documentation accompanying the data sets and extracted manually by DAAC staff who have read the .doc files provided on the CD-ROM and have hand entered this information into the metadata database maintained by the DAAC. QA procedures have been performed on these metadata to identify and eliminate typographical errors and inconsistencies in naming conventions, to ensure that all required metadata is present, and to ensure the accuracy of file names and paths for retrieval.
- Data requested for distribution to users are checked to verify that files copied from disk to other media remain uncorrupted.

As errors are discovered in the online tabular data by investigators, users, or DAAC staff, corrections are made in cooperation with the principal investigators. These corrections are then distributed to users. CD-ROM data are corrected when re-mastering occurs for replenishment of CD-ROM stock.

11. Notes:

Limitations of the Data:

Not available.

Known Problems with the Data:

See the *Confidence Level/Accuracy Judgment Section*.

Usage Guidance:

Use in the study of the atmospheric boundary layer.

Any Other Relevant Information about the Study:

None.

12. Application of the Data Set:

This data set contains parameters that can be used as initial conditions in meteorological numerical models as well as forcing functions in models, or as verification and comparison of numerical model's results.

13. Future Modifications and Plans:

The FIFE field campaigns were held in 1987 and 1989 and there are no plans for new data collection. Field work continues near the FIFE site at the Long-Term Ecological Research (LTER) Network Konza research site (i.e., LTER continues to monitor the site). The FIFE investigators are continuing to analyze and model the data from the field campaigns to produce new data products.

14. Software:

Software to access the data set is available on the all volumes of the FIFE CD-ROM set. For a detailed description of the available software see the *Software Description Document*.

15. Data Access:

Contact Information:

ORNL DAAC User Services
Oak Ridge National Laboratory

Telephone: (865) 241-3952
FAX: (865) 574-4665

Email: ornldaac@ornl.gov

Data Center Identification:

ORNL Distributed Active Archive Center
Oak Ridge National Laboratory
USA

Telephone: (865) 241-3952
FAX: (865) 574-4665

Email: ornldaac@ornl.gov

Procedures for Obtaining Data:

Users may place requests by telephone, electronic mail, or FAX. Data is also available via the World Wide Web at http://daac.ornl.gov.

Data Center Status/Plans:

FIFE data are available from the ORNL DAAC. Please contact the ORNL DAAC User Services Office for the most current information about these data.

16. Output Products and Availability:

The FIFE Standard Pressure Level Radiosonde Data are available on FIFE CD-ROM Volume 1. The CD-ROM filename is as follows:

\DATA\ATMOS\BRUT_DRV\YyyMmm\ydddNnnn.WBD

Where *yy* is the last two digits of the year (e.g., Y87 = 1987) and *mm* is the month of the year (e.g., M12 = December). Note: capital letters indicate fixed values that appear on the CD-ROM exactly as shown here, lower case indicates characters (values) that change for each path and file.

The format used for the filenames is: *ydddNnnn.sfx*, where *y* is the last digit of the year (e.g., 7 = 1987, and 9 = 1989), *ddd* is the day of the year (e.g., 061 = sixty-first day in the year), and *nnn* is the flight number (ranging from 002 - 450). The file extension, (*.sfx*), identifies the data set content for the file and is equal to .WBD for this data set.

17. References:

Satellite/Instrument/Data Processing Documentation.

NOAA. 1981. Radiosonde observations. Federal Meteorological Handbook No. 3. U.S. Department of Commerce. National Weather Service. Washington, DC.

Journal Articles and Study Reports.

Brutsaert, W. and M. Sugita. 1990. The extent of the unstable Monin-Obukhov layer for temperature and humidity above complex hilly grassland. Boundary-Layer Meteor. 51:383-400.

Brutsaert, W. and M. Sugita. 1991. A bulk similarity approach in the atmospheric boundary layer using radiometric skin temperature to determine regional surface fluxes. Boundary-Layer Meteor. 55:1-23.

Brutsaert, W. and M. Sugita. 1992. Self-preservation in the diurnal evolution of the surface energy budget to determine daily evaporation. J. Geophys. Res. 97:18,377-18,382.

Sugita, M. and W. Brutsaert. 1990. Wind velocity measurements in the neutral boundary layer above hilly prairie. J. Geophys. Res. (Atmos.). 95(D6):7617-7624.

Sugita, M. and W. Brutsaert. 1990. How similar are temperature and humidity profiles in the unstable boundary layer? J. Appl. Meteor. 29:489-497.

Sugita, M. and W. Brutsaert. 1992. The stability functions in the bulk similarity formulation for the unstable boundary layer. Boundary-Layer Meteor. 61:65-80.

Archive/DBMS Usage Documentation.

Contact the EOS Distributed Active Archive Center (DAAC) at Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee (see the *Data Center Identification Section*). Documentation about using the archive and/or online access to the data at the ORNL DAAC is not available at this revision.

18. Glossary of Terms:

A general glossary for the DAAC is located at Glossary.

19. List of Acronyms:

CD-ROM Compact Disk (optical), Read-Only Memory DAAC Distributed Active Archive Center EOS Earth Observing System EOSDIS EOS Data and Information System. FIFE First ISLSCP Field Experiment FIS FIFE Information System GMT Greenwich Mean Time IFC Intensive Field Campaign ISLSCP International Satellite Land Surface Climatology Project NOAA National Oceanic and Atmospheric Administration ORNL Oak Ridge National Laboratory TDF Table Definition File URL Uniform Resource Locator UTM Universal Transverse Mercator

A general list of acronyms for the DAAC is available at http://daac.ornl.gov/acronyms.html.

20. Document Information:

April 25, 1994.

Warning: This document has not been checked for technical or editorial accuracy by the FIFE Information Scientist. There may be inconsistencies with other documents, technical or editorial errors that were inadvertently introduced when the document was compiled or references to preliminary data that were not included on the final CD-ROM.

Previous versions of this document have been reviewed by the Principal Investigator, the person who transmitted the data to FIS, a FIS staff member, or a FIFE scientist generally familiar with the data.

Document Review Date:

August 28, 1996 (citation revised on October 3, 2002).

Document ID:

ORNL-FIFE_BRUT_DRV.

Citation:

Cite this data set as follows (citation revised on October 3, 2002):

Lutz, R. J. 1994. Atmos[pheric]. Profile: St[andar]d. Press[ure]. Level (FIFE). Data set. Available on-line [http://www.daac.ornl.gov] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/14. Also published in D. E. Strebel, D. R. Landis, K. F. Huemmrich, and B. W. Meeson (eds.), Collected Data of the First ISLSCP Field Experiment, Vol. 1: Surface Observations and Non-Image Data Sets. CD-ROM. National Aeronautics and Space Administration, Goddard Space Flight Center, Greenbelt, Maryland, U.S.A. (available from http://www.daac.ornl.gov).

Document Curator:

DAAC Staff

Document URL:

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